

# **Getting in the Door: A Public Health Approach to Excessive Alcohol Use**

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**National Institutes of Health  
U.S. Department of Health and Human  
Services**





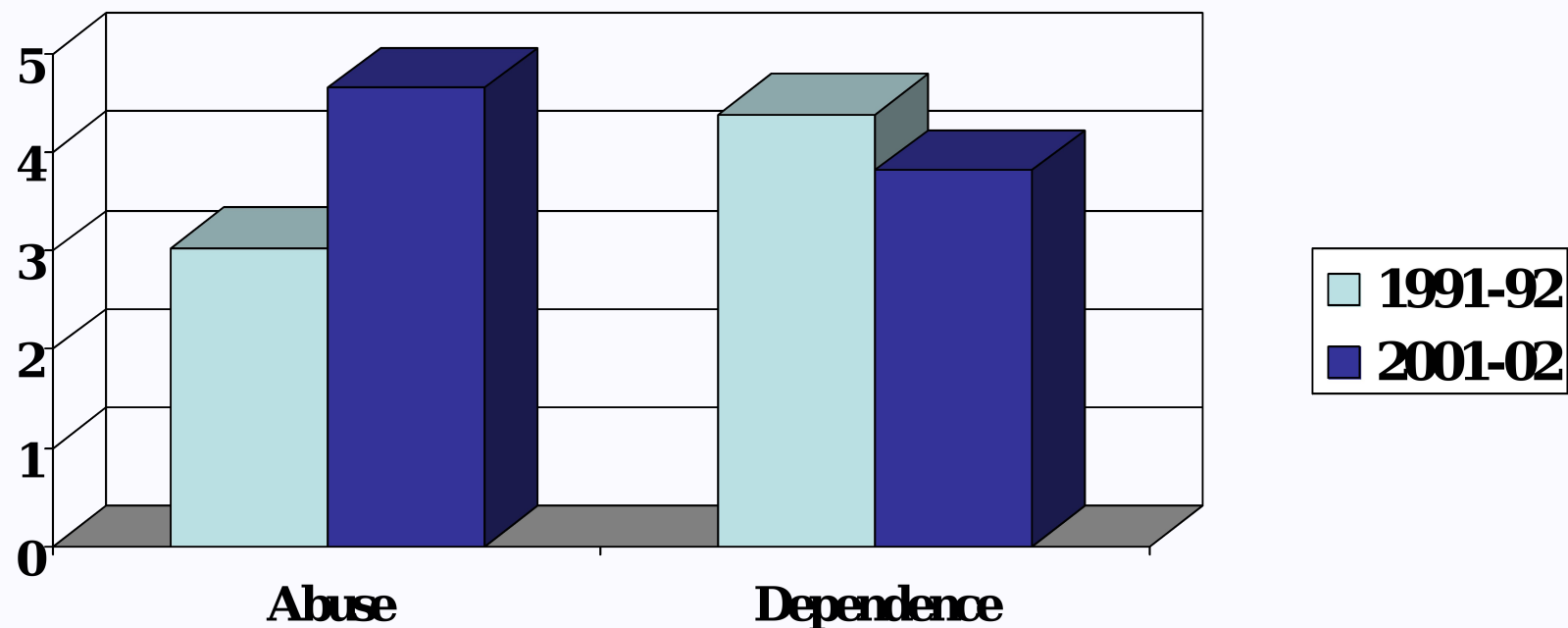




# Reducing the Public Health Burden of Excessive Alcohol Use



# Alcohol Use Disorders: 12 Month Prevalence 1991-92 to 2001-02, U.S.



**Estimated annual cost (US):  
\$185 billion**

Source: NIAAA

# Actual Causes of Death,<sup>1</sup> United States - 2000

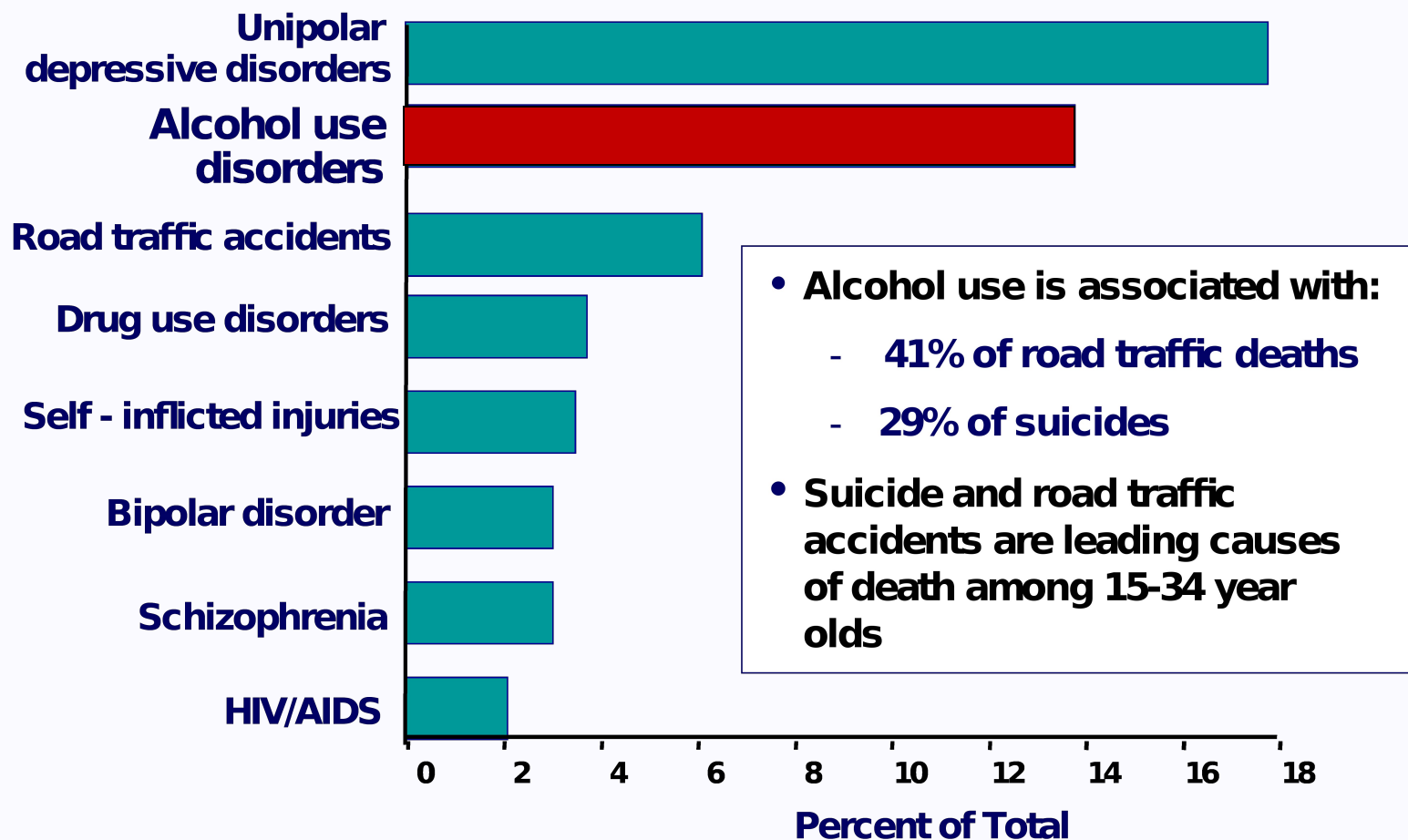
Actual Cause	No (%) in 2000
<b>Tobacco</b>	<b>435,000</b>
	<b>(18.1)</b>
<b>Poor diet and physical inactivity</b>	<b>365,000</b>
	<b>(15.2)</b>
<b>Alcohol Consumption</b>	<b>85,000 (3.5)</b>
<b>Microbial agents</b>	<b>75,000 (3.1)</b>
<b>Toxic agents</b>	<b>55,000 (2.3)</b>
<b>Motor vehicle</b>	<b>43,000 (1.)</b>
<b>Firearms</b>	<b>29,000 (1.2)</b>
<b>Sexual behavior</b>	<b>20,000 (0.8)</b>
<b>Illicit drug use</b>	<b>17,000 (0.7)</b>

Mokdad AH, Marks JS, Stroup DF, Gerberding JL. JAMA (2004). 29:1238-45;

Mokdad AH, Marks JS, Stroup DF, Gerberding JL. (2005). JAMA 19:1238-45.

# Disease Burden by Illness - DALY\* United States, Canada and Western Europe, 2000

## 15 - 44 year olds



\*disability-adjusted life year

# Logistic Regression Model of Risk of Death

<b>Midlife Risk Factors</b>	<b>Odds of Dying Before Age 85</b>
<b>Ever smoker</b>	<b>1.94</b>
<b>Glucose <math>\geq 200</math> mg/dl</b>	<b>1.64</b>
<b>High alcohol consumption (<math>\geq 3</math> drinks/day)</b>	<b>1.58</b>
<b>Hypertension</b>	<b>1.45</b>
<b>Overweight (BMI <math>\geq 25</math>)</b>	<b>1.13</b>



# **How Large Is the Public Health Burden of Excessive Alcohol Consumption?**

**Answer: Very Large-  
In the Same Range as  
Depression,  
Hypertension & Diabetes**

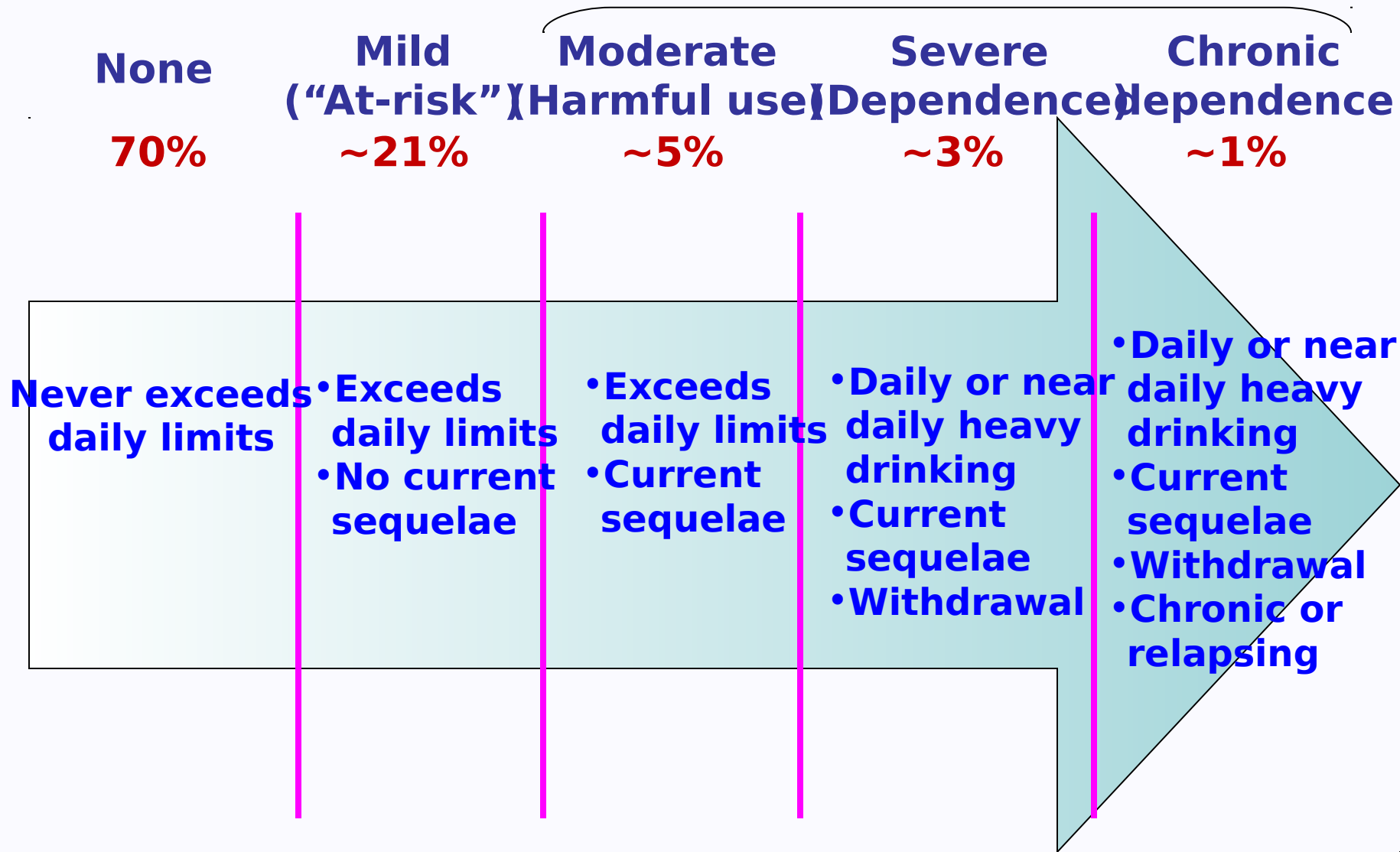


# How Well Does the Current Health Care System Address This Burden?

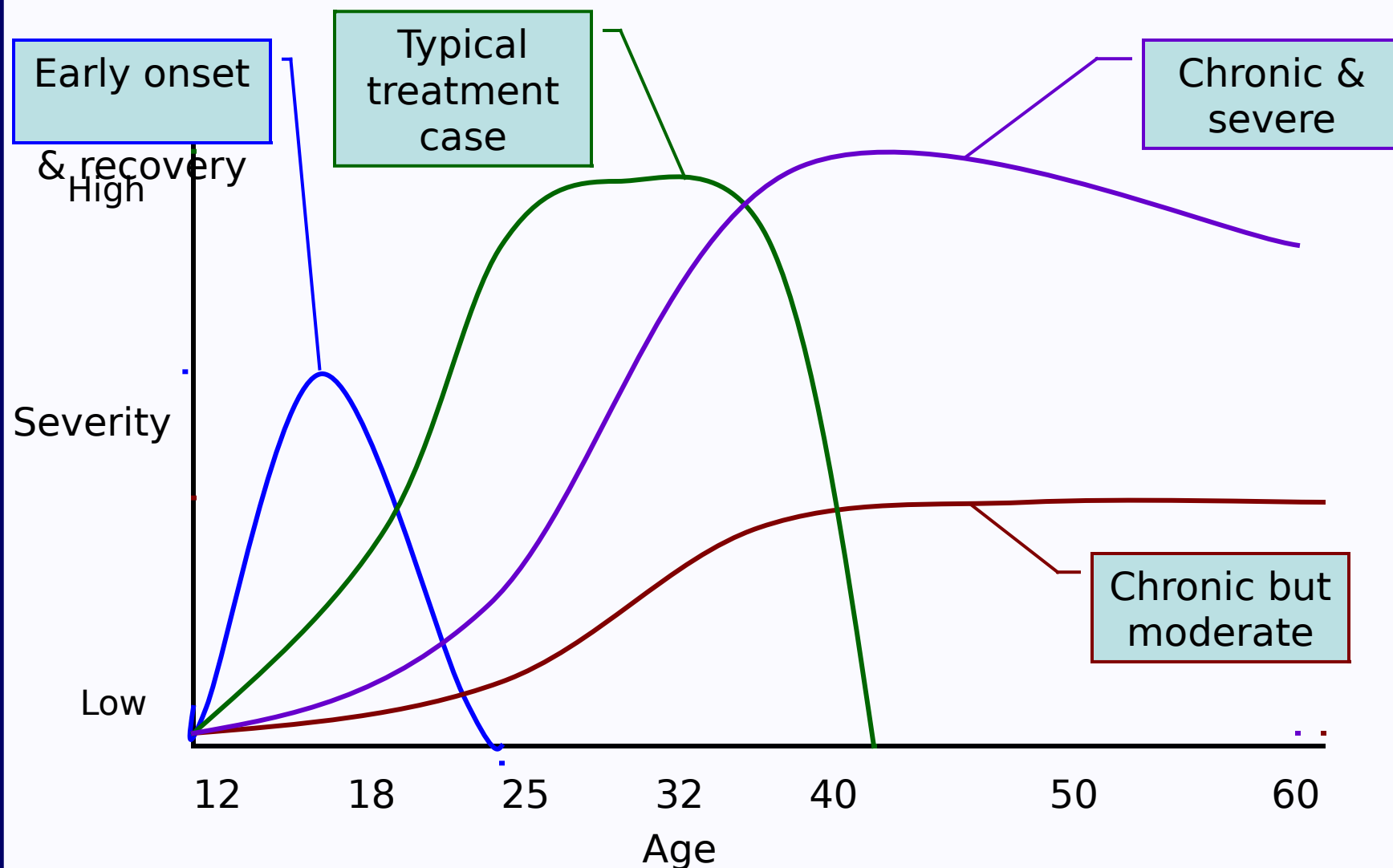


# Heterogeneity of Alcohol Use: Diagnosis

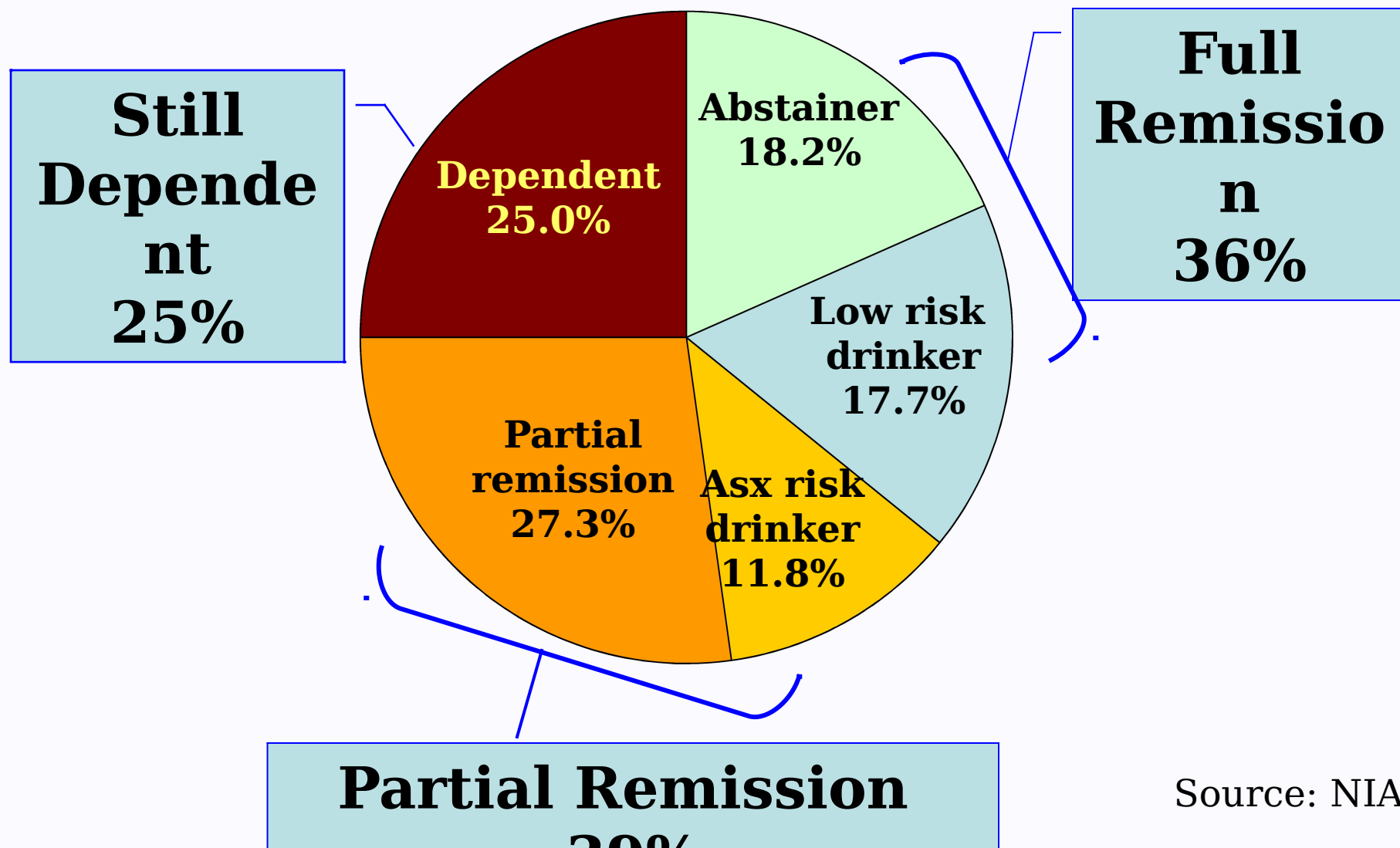
DSM-IV Abuse/Dependence



# Heterogeneity of severity: Course

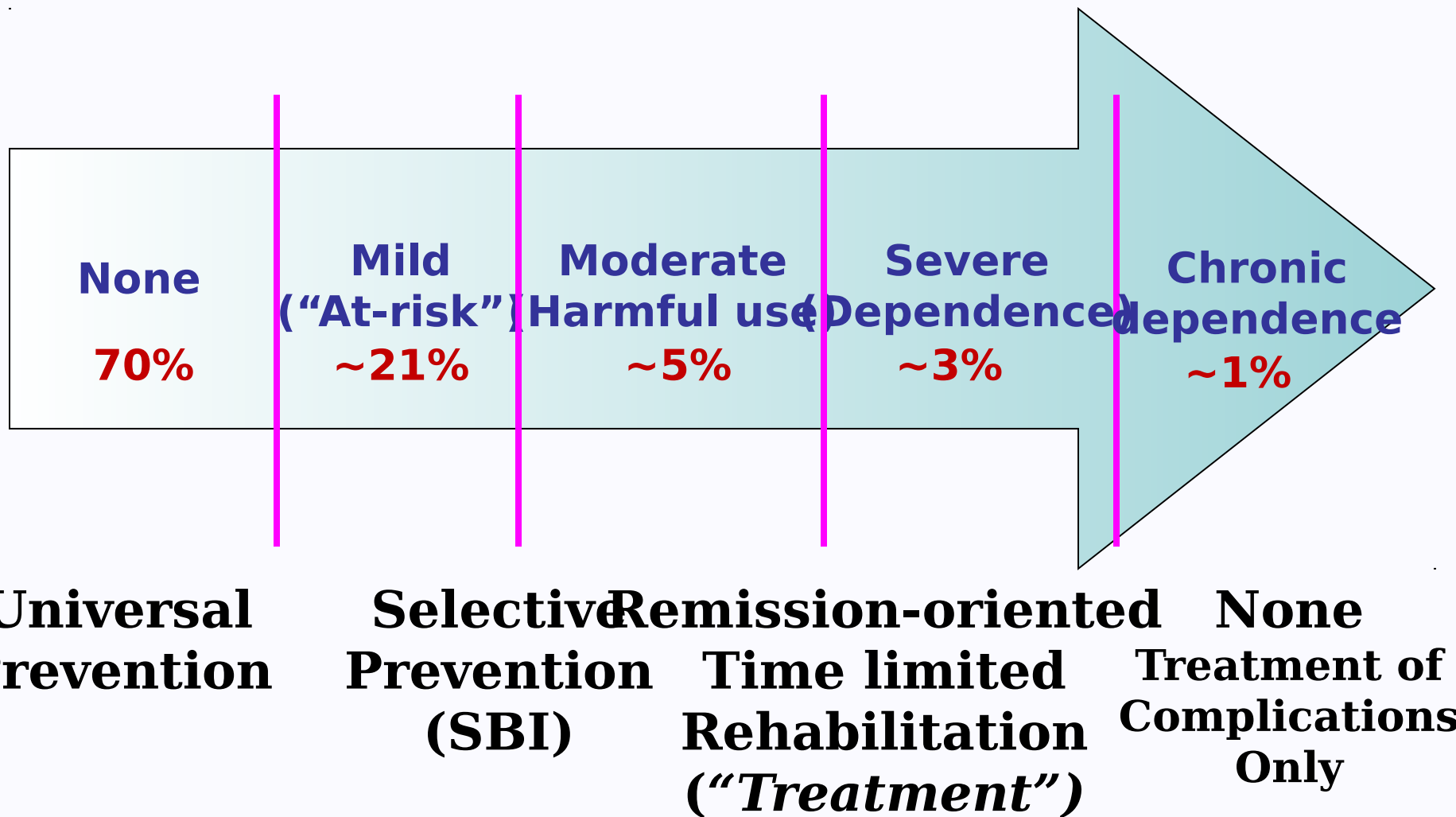


# Current Status of Adults with Prior to Past Year Dependence

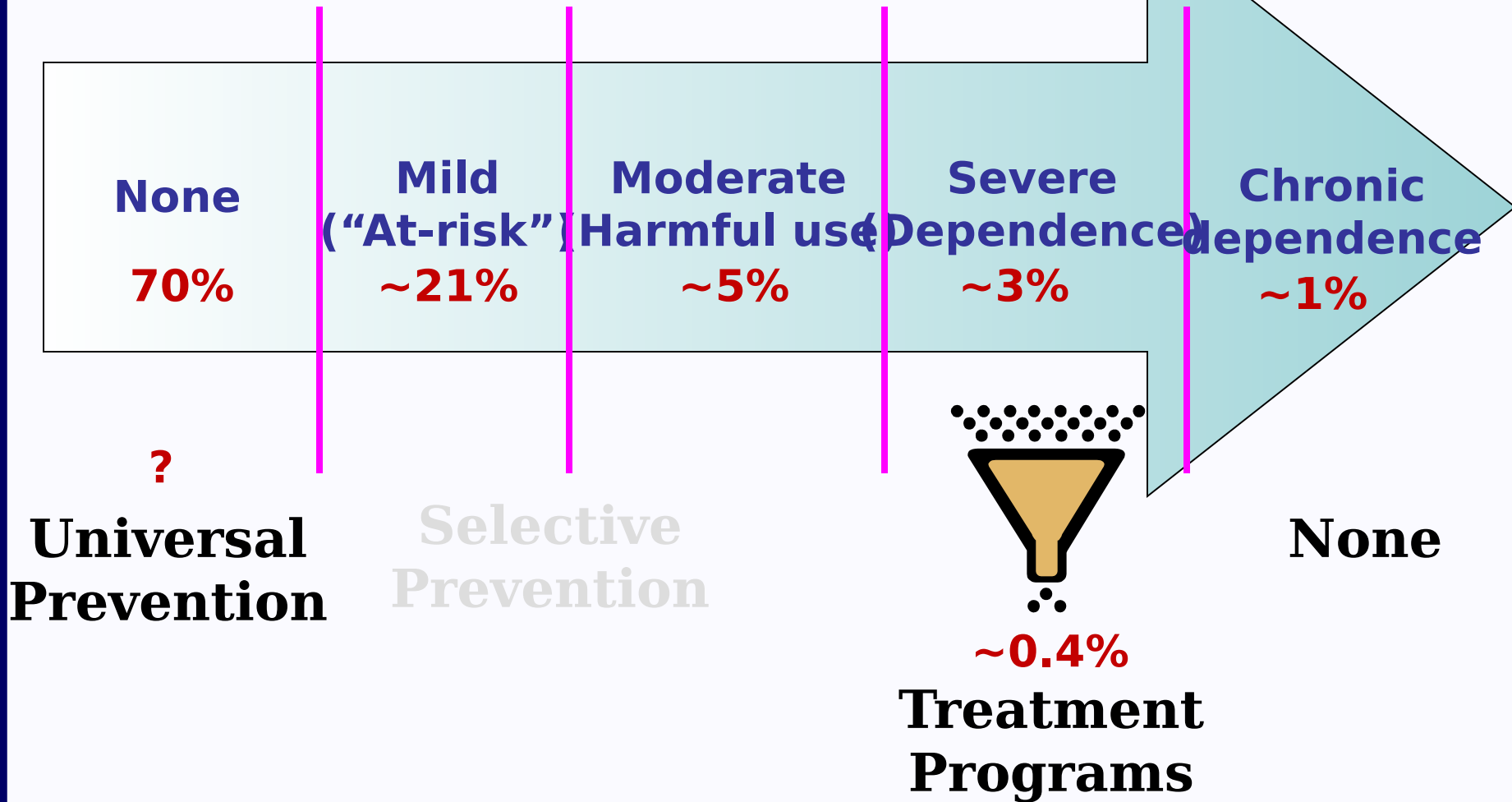


Source: NIAA

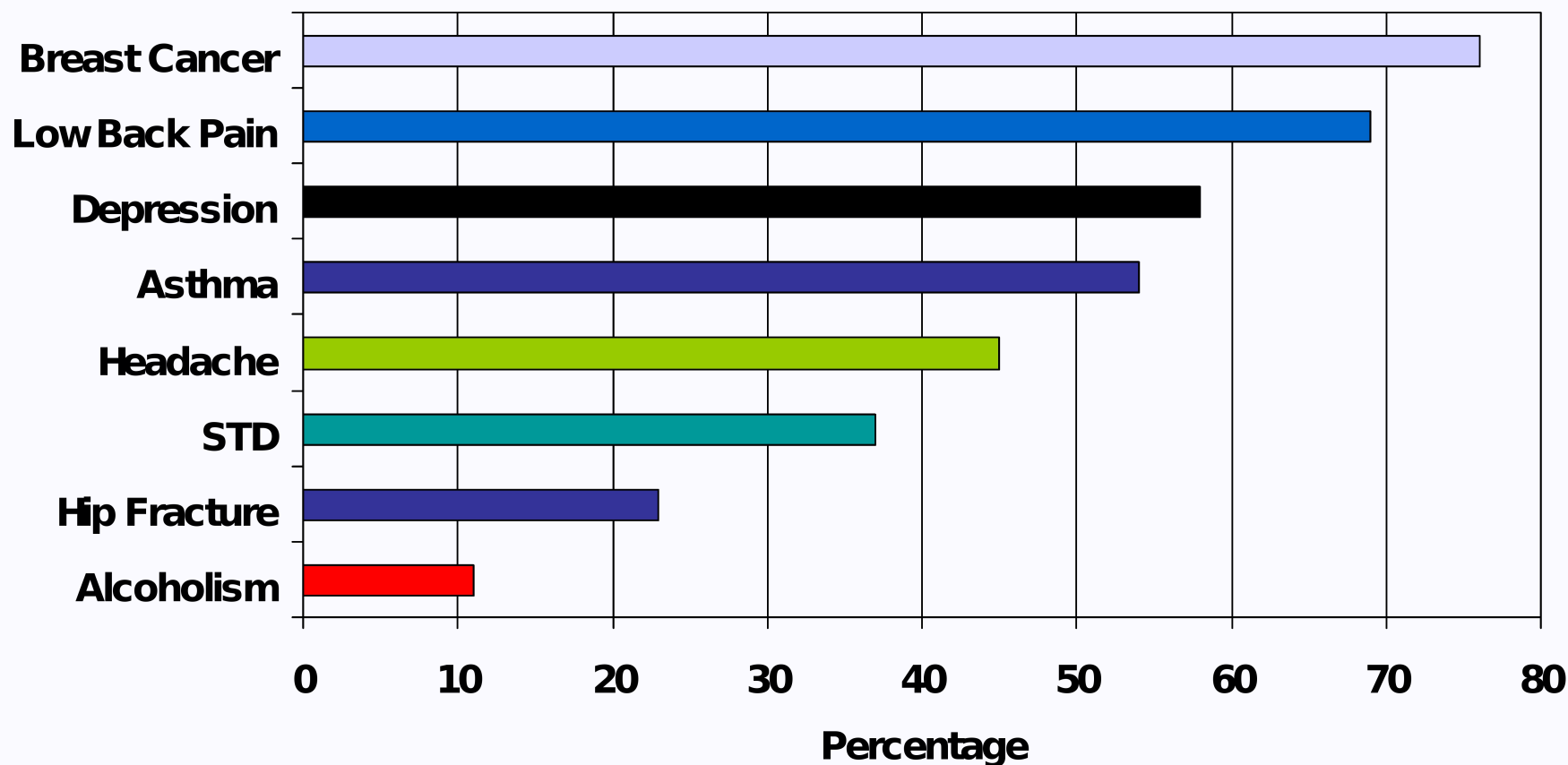




# Heterogeneity of Alcohol Use: Prevention & Treatment-Reality

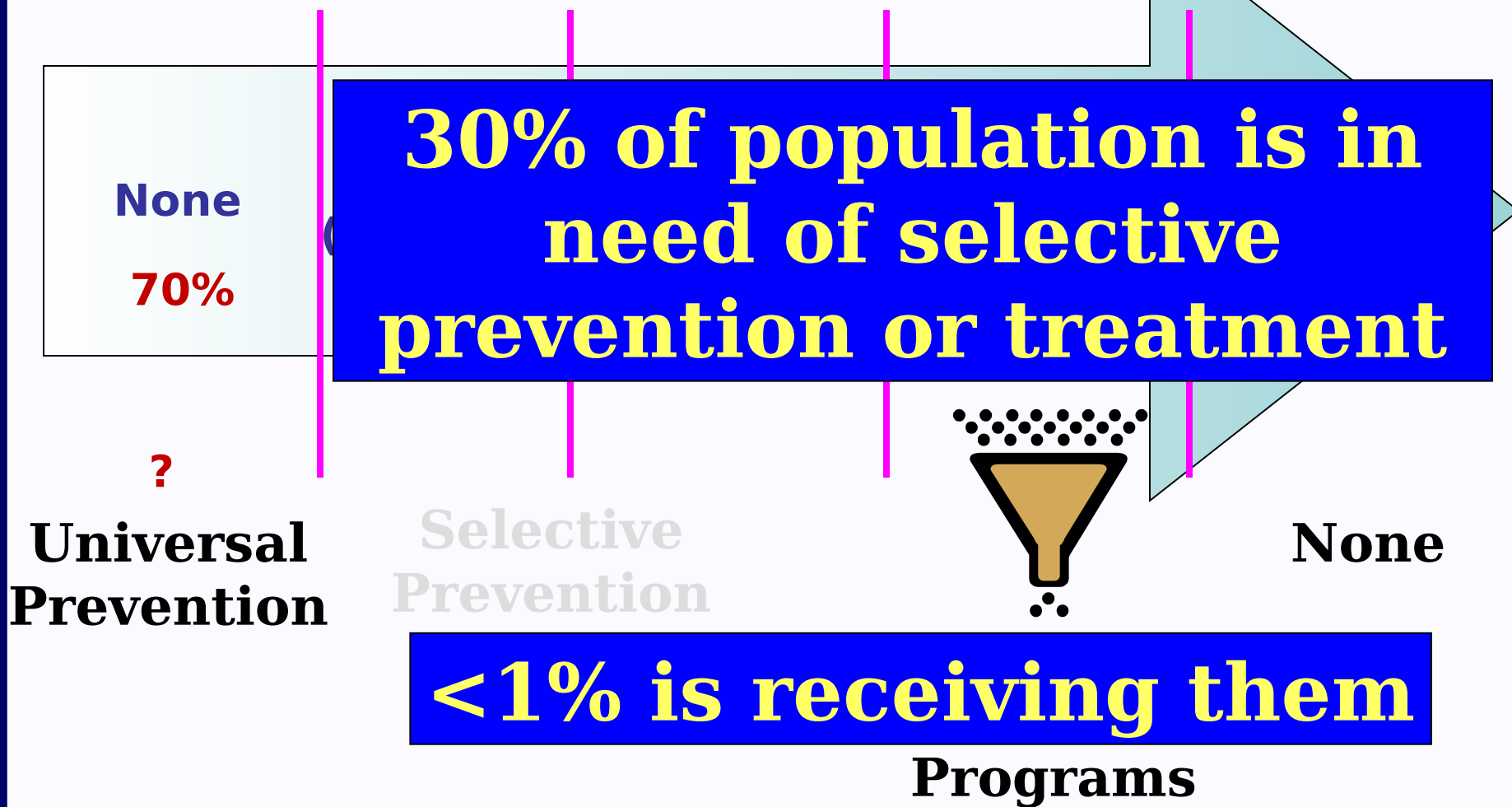


# Quality of care for alcohol dependence was the worst among 30 acute & chronic conditions



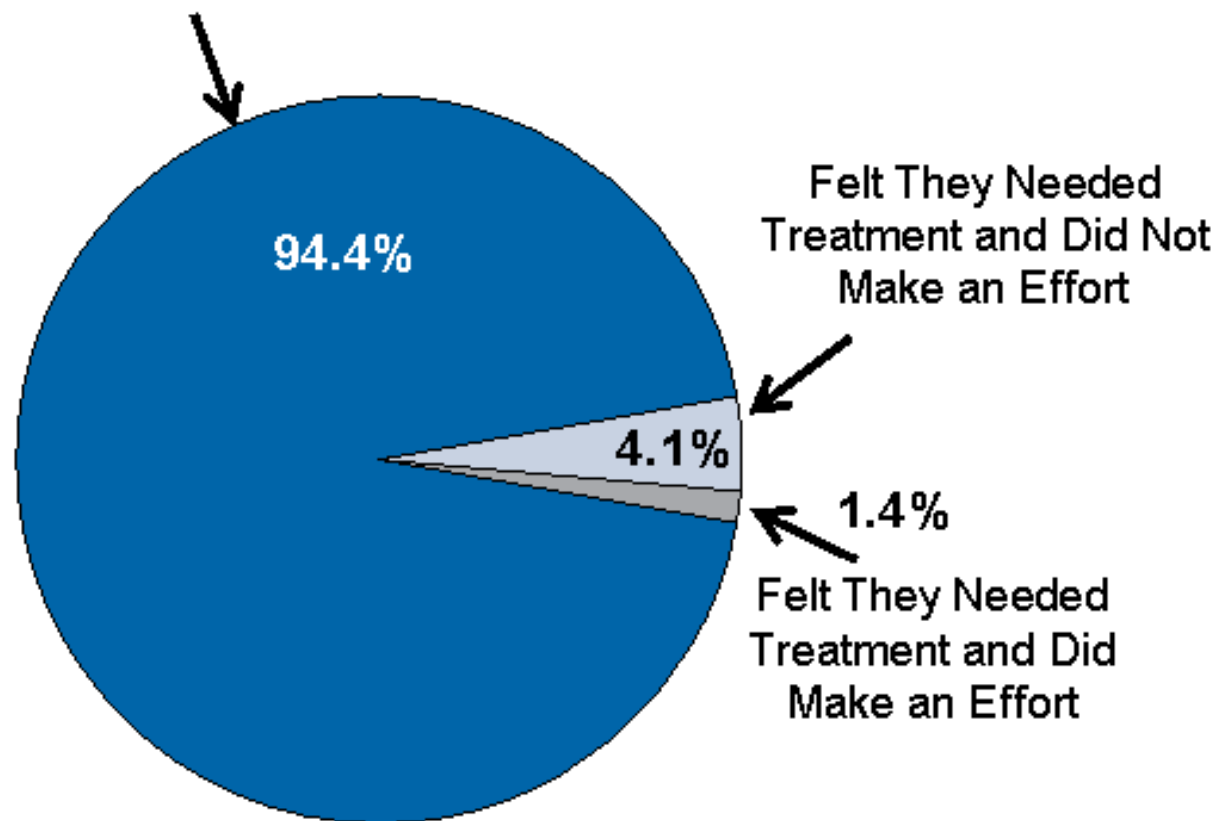
McGlynn et al., N Engl J Med 2003;348:2635-45.

# Heterogeneity of Alcohol Use: Prevention & Treatment-Reality



# 94% perceive no need for treatment

Did Not Feel They Needed Treatment



20.9 Million Needing But Not Receiving  
Treatment for Illicit Drug or Alcohol Use



# **How Well Does the Current Health Care System Address This Burden?**

**Answer: Very Poorly-  
Quality of care is the worst  
of 30 common conditions**





# **How Can We Address the Public Health Burden of Excessive Alcohol Use More Effectively?**



# Fishing in the Deep Blue



# The Big Picture

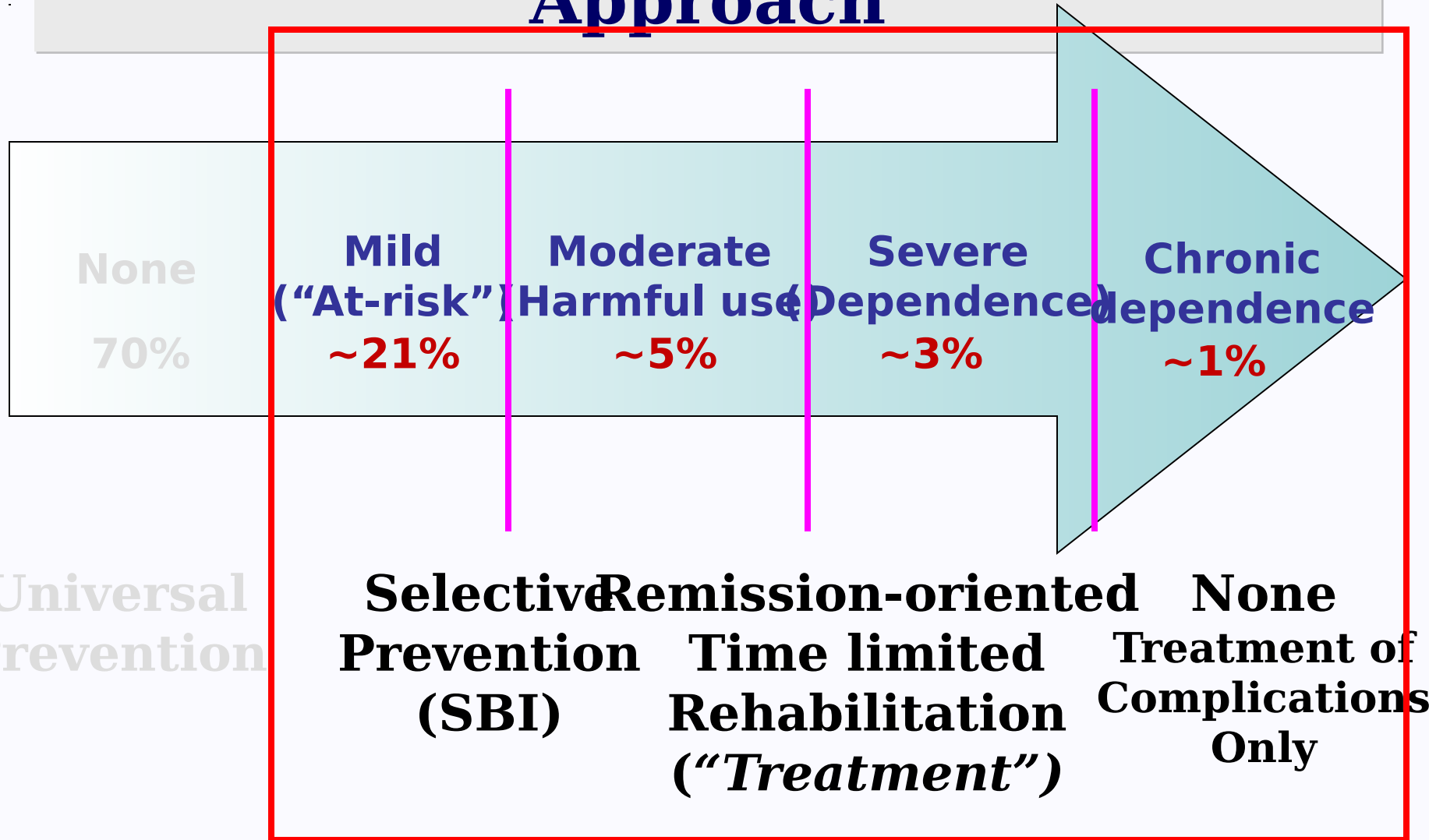




# The Big Picture

- **Public health approach**
- **We have not significantly reduce prevalence of AUDs or improved community treatment outcomes**
- **Evolution of both research and treatment fields**
  - **What are alcohol use disorders?**
  - **Heterogeneity of diagnosis, course, treatment response**

# Heterogeneity of Alcohol Use: Prevention & Treatment-Current Approach



# Current Diagnosis of Alcohol Use Disorders

**No  
Diagnosis**

**DSM-IV Alcohol Abuse and Dependence**

**Mild  
("At-risk")**

- Exceeds daily limits
- No current sequelae

**Moderate  
(Harmful use)**

- Exceeds daily limits
- Current sequelae

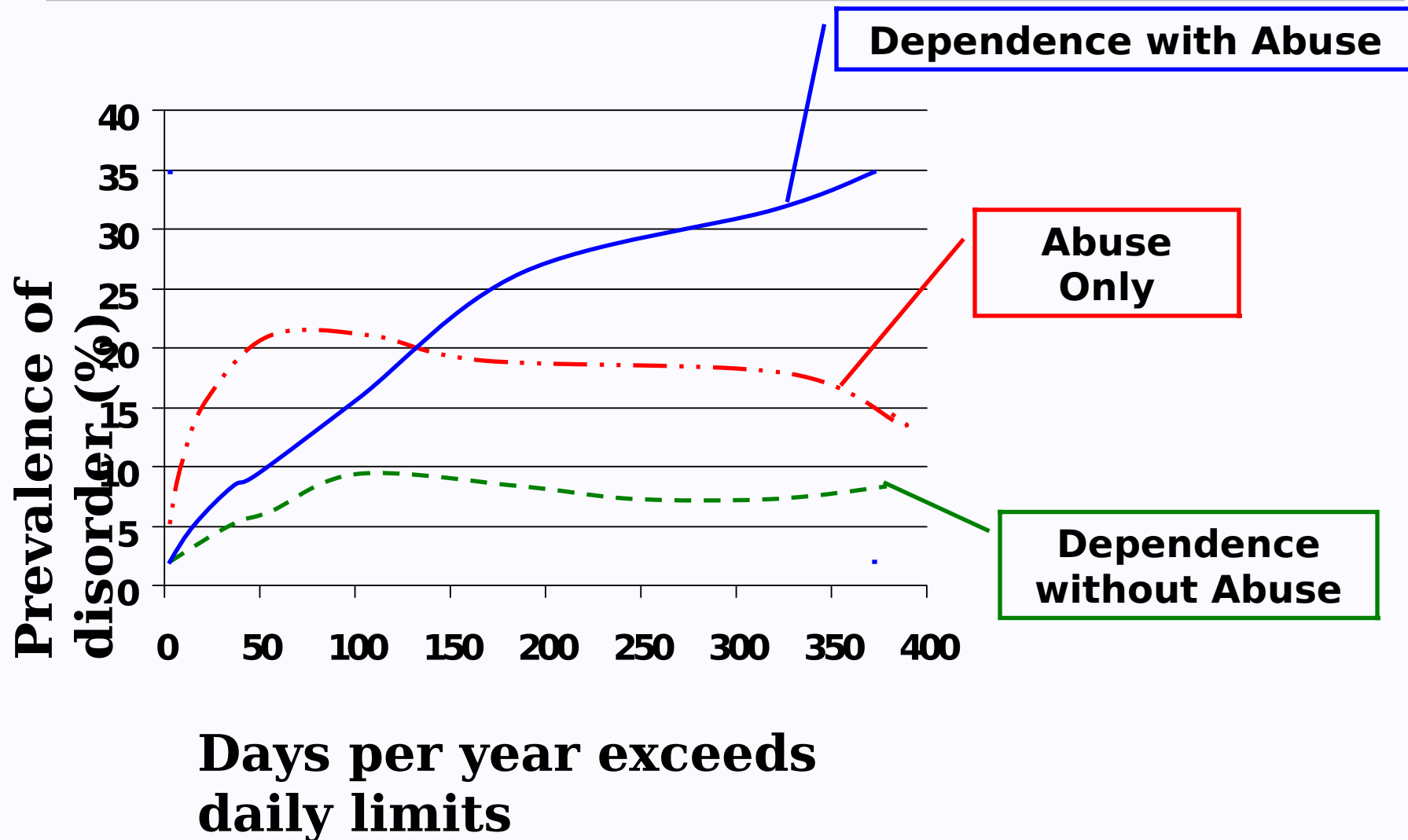
**Severe  
(Dependence)**

- Daily or near daily heavy drinking
- Current sequelae
- Withdrawal

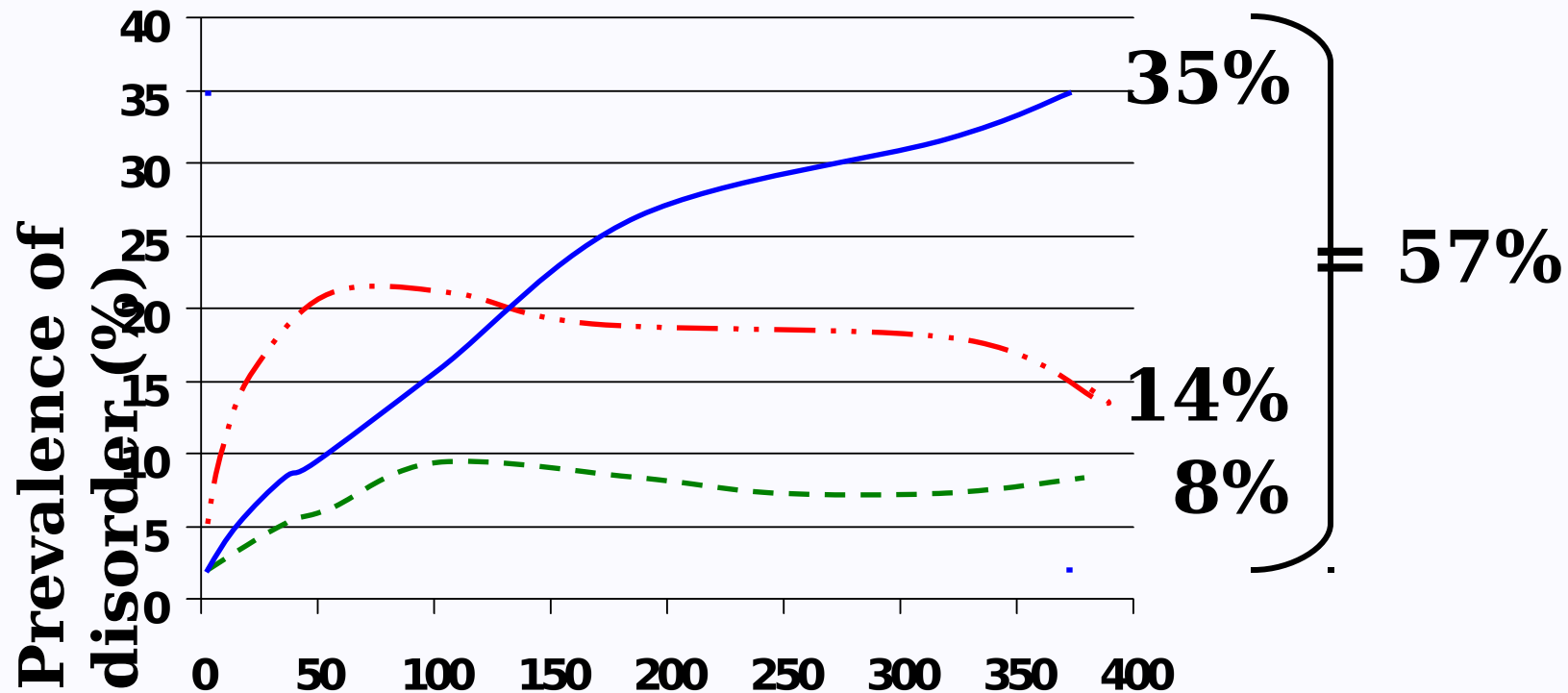
**Chronic  
dependence**

- Daily or near daily heavy drinking
- Current sequelae
- Withdrawal
- Chronic or relapsing

# Heterogeneity of Alcohol Use: Diagnosis



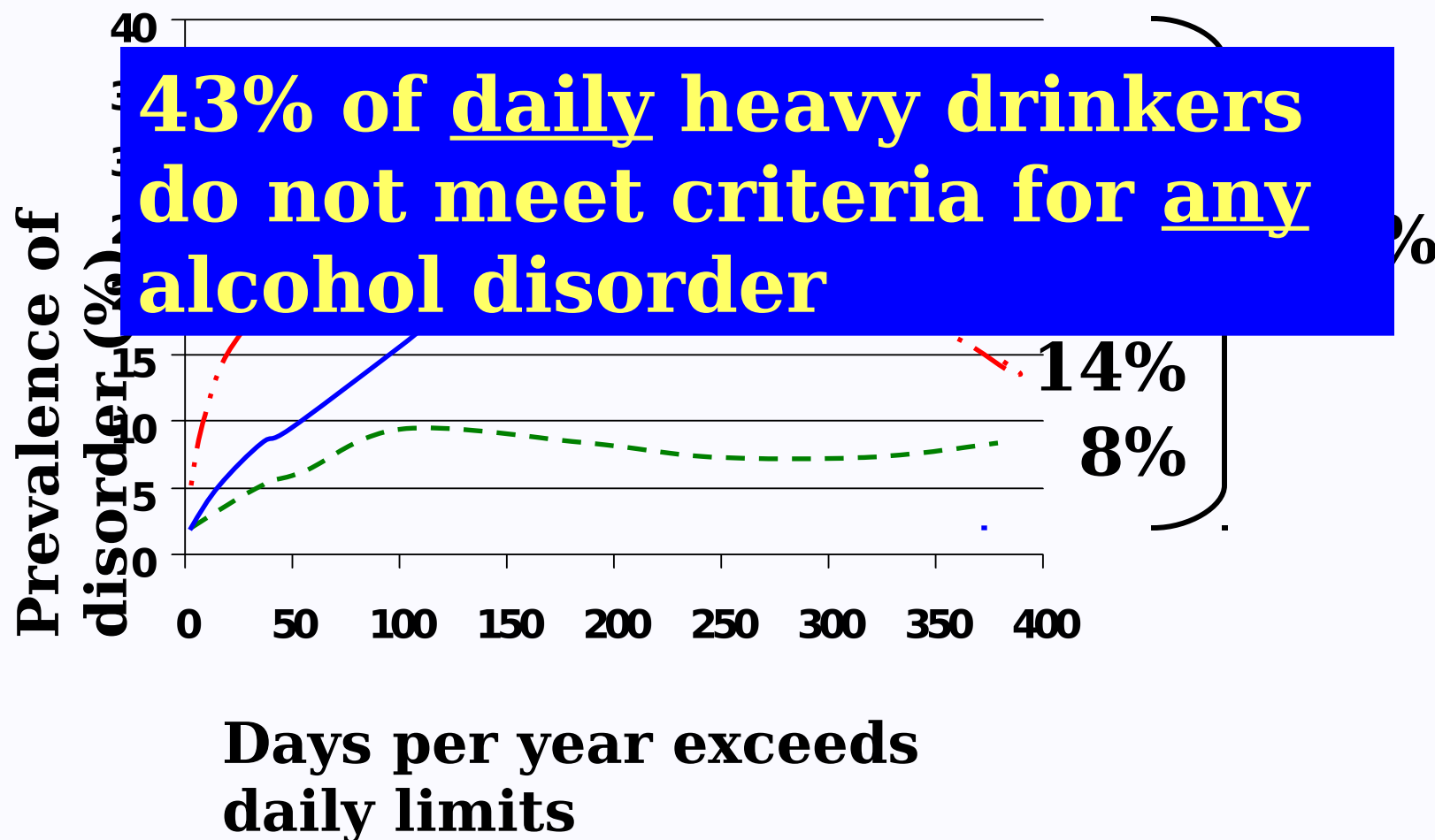
# Alcohol Disorders in Heavy Drinkers



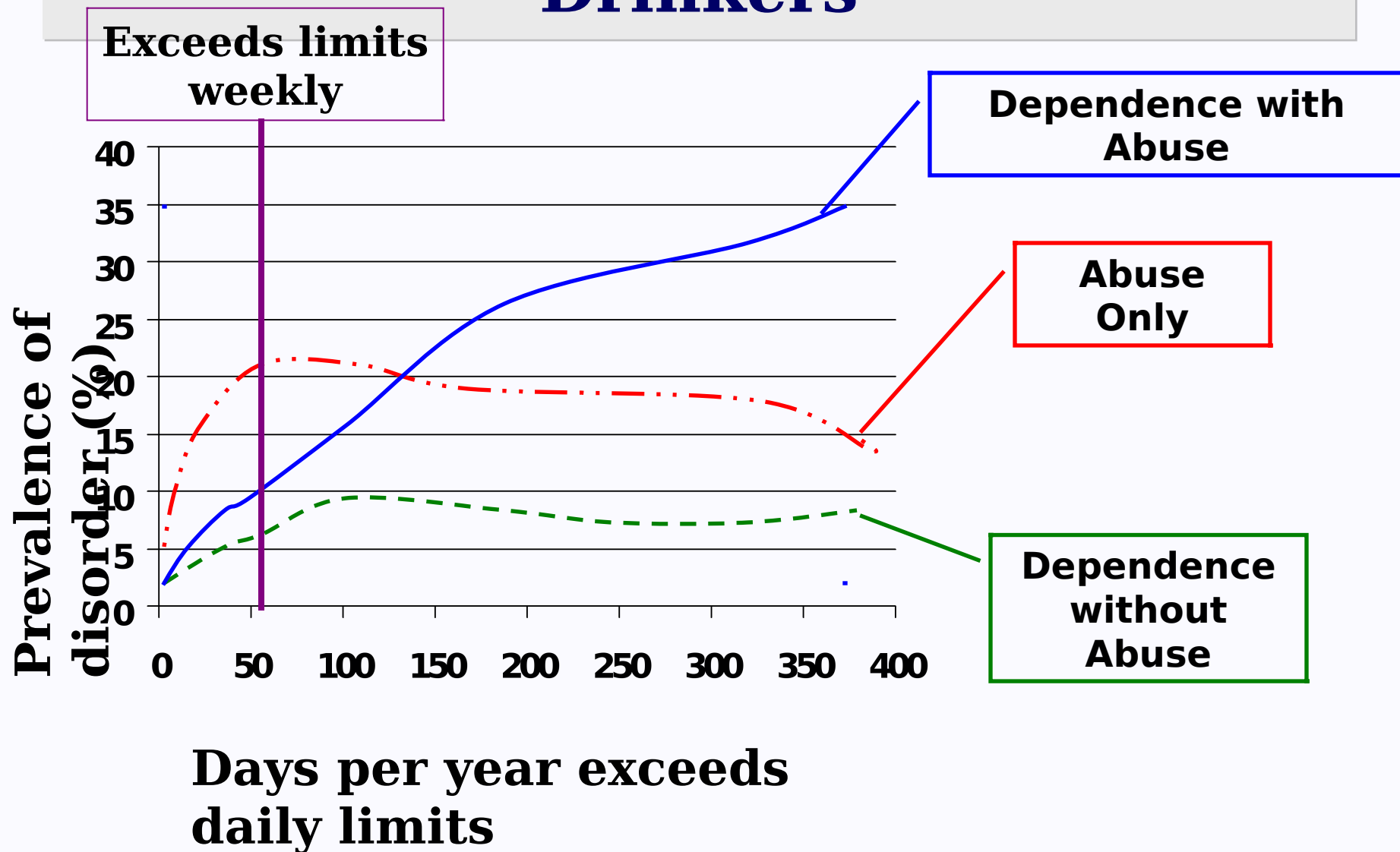
**Days per year exceeds daily limits**



# Alcohol Disorders in Heavy Drinkers



# Alcohol Disorders in Heavy Drinkers



# Risk model of regular heavy drinking and adverse outcomes

Regular heavy drinking  
Minimum 1x/week  
Usual 4-7x/week

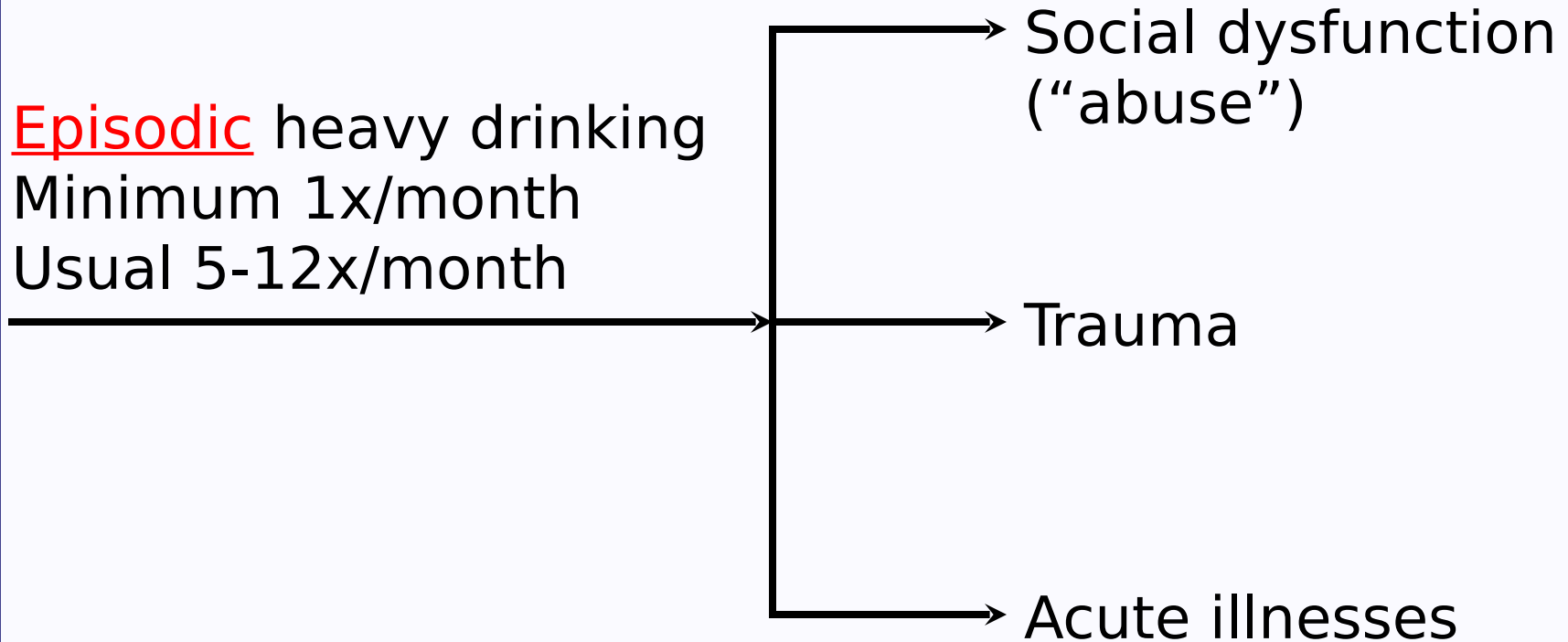
Brain disease  
(addiction)

Liver disease  
(fibrosis, cirrhosis)

Other adverse  
outcomes –  
Health & social

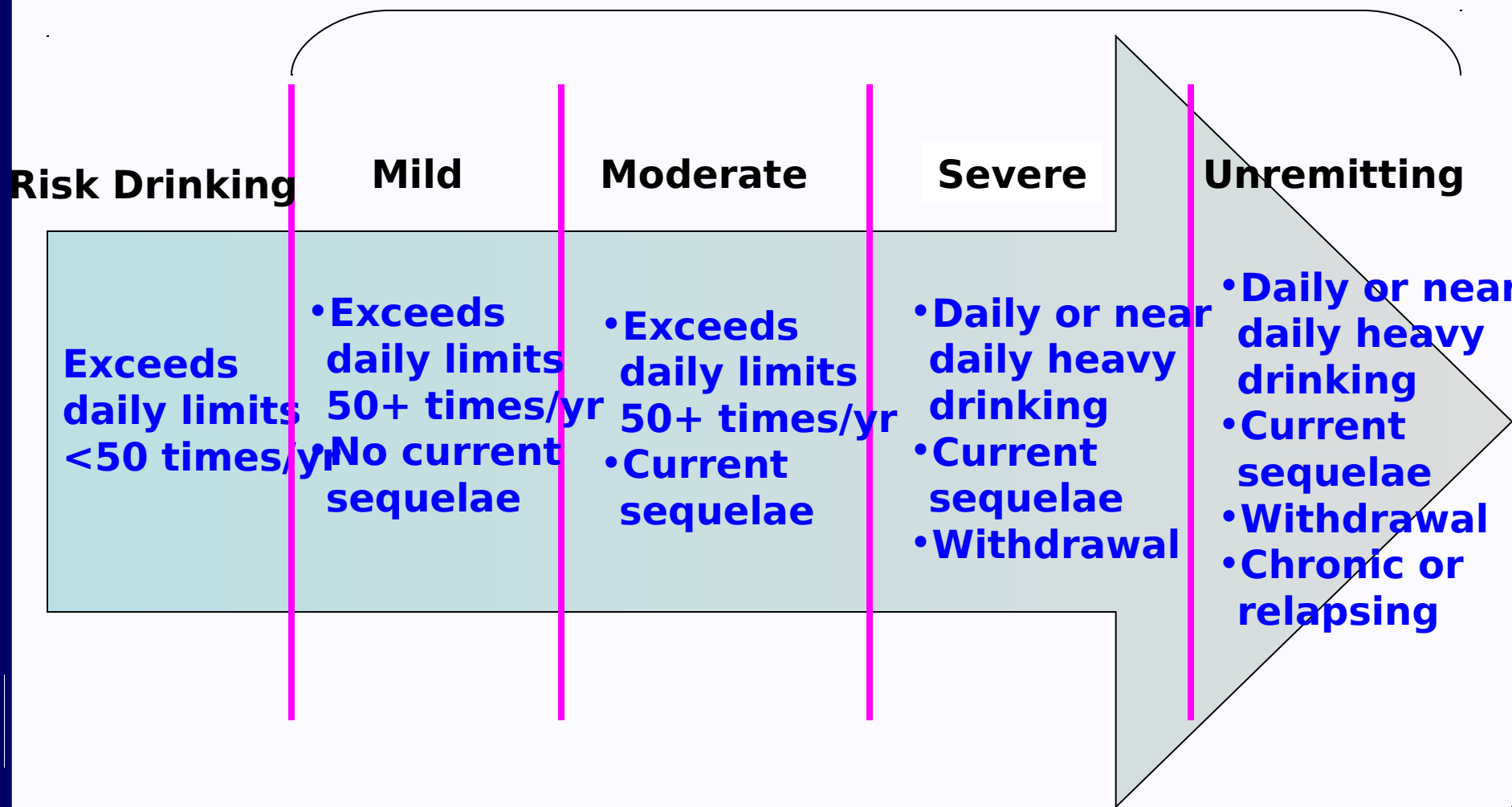
# Risk model of episodic heavy drinking and adverse outcomes

Episodic heavy drinking  
Minimum 1x/month  
Usual 5-12x/month



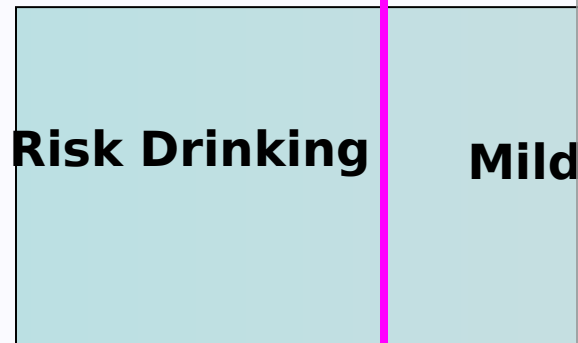
# Dimensional Diagnosis of Alcohol Use Disorder

## Alcohol Use Disorder



# Implications for a Continuum of Care

## Selective Prevention



- Facilitated Self-Change
- Brief Motivational Counseling
- Widespread availability
  - Internet
  - Toll-free telephones
  - Bookstores
  - Schools & workplaces
  - Churches
  - Criminal justice system

## Next step

- Primary care
- General mental health care
- Bulk of people needing treatment are here
- Pharmacotherapy
- Outpatient behavioral treatment
- Remission oriented rehabilitation programs

**Risk Drinking**

**Mild**

**Moderate**

**Severe**

**Unremitting**

# Implications for a Continuum of Care

Addiction Specialty sector

- Fully integrated with medical and psychiatric care systems
- Able to manage severe co-morbidities
- Disease management for chronic or relapsing disorders

Severe Unremitting



# **Implications for current treatment programs**

- **Increased case finding and referral**
  - ▢ **Need for increased capacity**
  - ▢ **Reconfiguration**
    - **Linkages and coordination**
    - **Remission oriented treatment and disease management**
  - ▢ **Funding**
  - ▢ **Workforce development**

# **Implications for current treatment programs**

- **Workforce development**
- **Need to develop true specialty care system**
  - **Integrated addiction, psychiatric, physical health care and social services**
  - **Chronic disease management**
- **Need to improve appeal**
  - **Collaborative approach**
  - **Customer service**

# **Implications for social work practitioners and addiction specialists**

- **Enhanced visibility**
- **Leadership role in reconfiguration**
- **Link between addiction specialty treatment and other care settings/specialties**
- **Pressing need for enhanced training at the undergraduate, post-graduate level, and continuing education level**

# Implications for Research

- **“Natural” change - Person within the Environment**
- **Culturally sensitive interventions for currently drinking patients**
- **Medications management**
- **Disease management models**

# Implications for Research

## ● Health services research

- ▢ Context of Care
- ▢ Training and Staffing
- ▢ Emphasizing “Services”
- ▢ Addressing Barriers
  - Client, Practitioner, Structural
- ▢ Use of Technology

# **How Can We Address the Public Health Burden of Excessive Alcohol Use More Effectively?**

**Answer: A continuum of care that considers disease heterogeneity is one potential way**



# NIAAA Clinicians Guide-2005 Edition

# New! Improved!

Helping  
Patients Who  
Drink Too Much

**A CLINICIAN'S GUIDE**

2005 Edition

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES  
National Institutes of Health  
National Institute on Alcohol Abuse and Alcoholism

Ayudando a  
Pacientes Que  
Beben en Exceso

**PARA PROFESIONALES DE LA SALUD**

Edición 2005

Using NIAAA's  
Clinician's Guide

PowerPoint SLIDE SHOW

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES  
National Institutes of Health  
National Institute on Alcohol Abuse and Alcoholism

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES  
National Institutes of Health  
National Institute on Alcohol Abuse and Alcoholism



- 140,000 copies distributed
- Used in many medical schools
- Adopted by behavioral health care agencies



# 2007 Update to the Guide

## Updated medications information

- ✓ Extended release naltrexone for injection
- ✓ Results from COMBINE trial

16 Medications for Treating Alcohol Dependence				
	Naltrexone (Depade®, ReVia®)	Extended-Release Injectable Naltrexone (Vivitrol®)	Acamprosate (Campral®)	Disulfiram (Antabuse®)
<b>Action</b>	Blocks opioid receptors, resulting in reduced craving and reduced reward in response to drinking.	Same as oral naltrexone, 30-day duration.	Affects glutamate and GABA neurotransmitter systems, but its alcohol-related action is unclear.	Inhibits intermediate metabolism of alcohol, causing a buildup of acetaldehyde and a reaction of flushing, sweating, nausea, and tachycardia if a patient drinks alcohol.
<b>Contraindications</b>	Currently using opioids or in acute opioid withdrawal; anticipated need for opioid analgesics; acute hepatitis or liver failure.	Same as oral naltrexone, plus inadequate muscle mass for deep intramuscular injection; rash or infection at the injection site.	Severe renal impairment (CrCl ≤ 30 mL/min).	Concomitant use of alcohol or alcohol-containing preparations or metronidazole; coronary artery disease; severe myocardial disease; hypersensitivity to rubber (thiuram) derivatives.
<b>Precautions</b>	Other hepatic disease; renal impairment; history of suicide attempts or depression. If opioid analgesia is needed, larger doses may be required and respiratory depression may be	Same as oral naltrexone, plus hemophilia or other bleeding problems.	Moderate renal impairment (dose adjustment for CrCl between 30 and 50 mL/min); depression or suicidal ideation and behavior. <i>Pregnancy Category C</i>	Hepatic cirrhosis or insufficiency; cerebrovascular disease or cerebral damage; psychoses (current or history); diabetes mellitus; epilepsy; hypothyroidism; renal impairment. <i>Pregnancy</i>

The information in this chart was drawn January 2007

# 2007 Update to the Guide

CLINICIAN SUPPORT MATERIALS

page 1 of 2

## Initial Session Template

### Medication Management Support for Alcohol Dependence

This template outlines the first in a series of appointments designed to support patients diagnosed with alcohol dependence who are starting a course of medication to help them maintain abstinence.

Date: \_\_\_\_\_ Time spent: \_\_\_\_\_

Patient name: \_\_\_\_\_

Pertinent history: \_\_\_\_\_

Observations: \_\_\_\_\_

**Before counseling:**

*Record from the patient's chart:*

☐ Alcohol-dependence medication prescribed:  
☐ naltrexone PO ☐ XR-naltrexone injectable ☐ acamprosate ☐ disulfiram ☐ other: \_\_\_\_\_  
 dose and schedule: \_\_\_\_\_

☐ Lab results and other patient information (fill in the left column of the chart below, to the degree possible)

*Gather:*

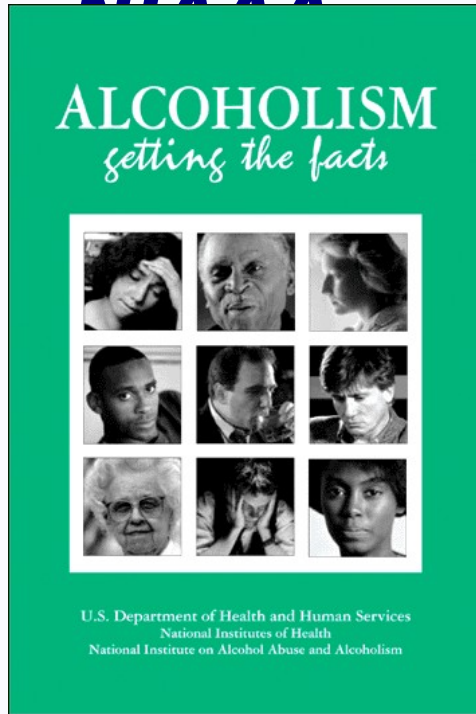
☐ Patient information on the medication (available, for example, from [www.medlineplus.gov](http://www.medlineplus.gov))  
☐ Wallet emergency card for naltrexone or disulfiram (see [www.niaaa.nih.gov/guide](http://www.niaaa.nih.gov/guide))  
☐ Listing of local mutual help groups. For AA, see [www.aa.org](http://www.aa.org); for other groups, see the National Clearinghouse for Alcohol and Drug Information Web site at [www.ncadi.samhsa.gov](http://www.ncadi.samhsa.gov) under "Resources."

Patient information— from the chart or patient report, this forms the basis for counseling	Counseling— delivered in a nonjudgmental way, this enhances patient motivation and provides the rationale for medication
<b>1 Review lab results and medical adverse consequences of heavy drinking:</b> Liver function test results: AST (SGOT): _____ ALT (SGPT): _____	Tie results and symptoms to heavy alcohol use: Describe normal liver function and adverse effects of heavy drinking, then discuss results of liver function tests

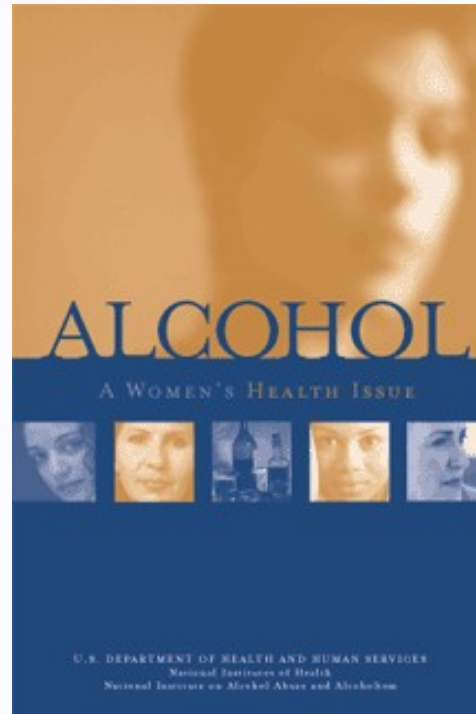
## Medication management support tools

- ✓ For non-specialist health professionals
- ✓ Provides behavioral platform for patients receiving medications
- ✓ Based on

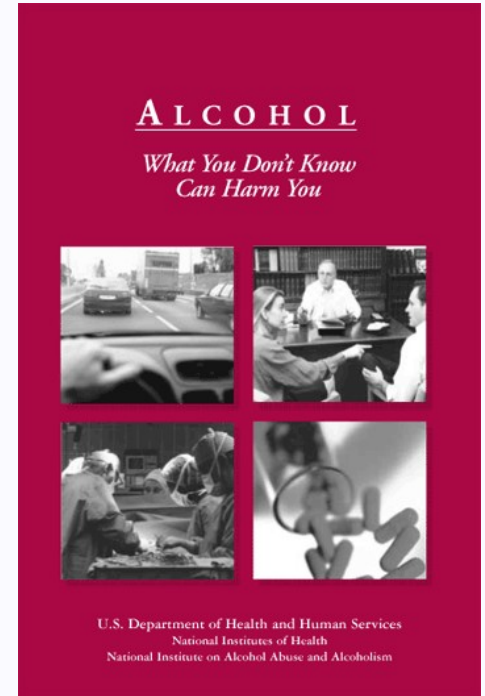
# Examples of Free Patient Education Materials from NIAAA



***Alcoholism:  
Getting  
the Facts***



***Alcohol:  
A  
Women's  
Health  
Issue***



***Alcohol:  
What You  
Don't Know  
Can Harm  
You***

# NIAAA also offers a condensed Pocket Guide that features the same steps and many of the supporting materials

**The Non-Prescribing Clinician's Guide is Coming in 2008**

## POCKET GUIDE FOR Alcohol Screening and Brief Intervention

2005 Edition

This pocket guide is condensed from the 30-page NIAAA guide, *Helping Patients Who Drink Too Much: A Clinician's Guide*.

For copies of the full guide or more copies of this pocket version, contact:

NIAAA Publications Distribution Center  
P.O. Box 10686, Rockville, MD 20849-0686  
(301) 443-3860  
[www.niaaa.nih.gov](http://www.niaaa.nih.gov)

### WHAT IS A STANDARD DRINK?

A standard drink is any drink that contains about 14 grams of pure alcohol (about 0.6 fluid ounces or 1.2 tablespoons). Below are standard drink equivalents as well as the number of standard drinks in different container sizes for each beverage. These are approximate, as different brands and types of beverages vary in their actual alcohol content.

STANDARD DRINK EQUIVALENTS	APPROXIMATE NUMBER OF STANDARD DRINKS IN:
<b>BEER or COOLER</b>	
12 oz.	• 12 oz. = 1 • 16 oz. = 1.3 • 22 oz. = 2 • 40 oz. = 3.3
<b>MALT LIQUOR</b>	
8-9 oz.	• 12 oz. = 1.5 • 16 oz. = 2 • 22 oz. = 2.5 • 40 oz. = 4.5
<b>TABLE WINE</b>	
5 oz.	• a 750 mL (25 oz.) bottle = 5
<b>80-proof SPIRITS (hard liquor)</b>	
1.5 oz.	• a mixed drink = 1 or more* • a pint (16 oz.) = 11 • a fifth (25 oz.) = 17 • 1.75 L (59 oz.) = 39

\*Note: Depending on factors such as the type of spirits and the recipe, one mixed drink can contain from one to three or more standard drinks.

### DRINKING PATTERNS

WHAT IS YOUR DRINKING PATTERN?	HOW COMMON IS THIS PATTERN?	HOW COMMON ARE ALCOHOL DISORDERS IN DRINKERS WITH THIS PATTERN?
<b>Based on the following limits—number of drinks:</b> On any 1 day, no more than 4 (men) or 3 (women) (in a typical WEEK—No more than 14 (men) or 7 (women))	Never exceed the daily or weekly limits (More than 8 out of 10 in this group exceed the daily limit less than once a week)	less than 1 in 100
Exceed only the daily limit (More than 8 out of 10 in this group exceed the daily limit less than once a week)	72%	1 in 5
Exceed both daily and weekly limits (8 out of 10 in this group exceed the daily limit once a week or more)	16%	almost 1 in 2
Exceed both daily and weekly limits (8 out of 10 in this group exceed the daily limit once a week or more)	10%	almost 1 in 2

\*Not included in the chart, for simplicity, are the 2 percent of U.S. adults who exceed only the weekly limits. The combined prevalence of alcohol use disorders in this group is 8 percent.

Source: 2001-2002 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), a nationwide survey sponsored by the National Institute on Alcohol Abuse and Alcoholism of 43,095 U.S. adults aged 18 or older.

### PRESCRIBING MEDICATIONS

The chart below contains excerpts from page 20 of *Helping Patients Who Drink Too Much: A Clinician's Guide*. It does not provide complete information and is not meant to be a substitute for a provider's judgment. For patient information, visit [www.niaaa.nih.gov](http://www.niaaa.nih.gov).

Disulfiram (Antabuse®)	Nalmefene (ReVia®)	Acamprosate (Campral®)
<b>Contraindications:</b> Disulfiram is contraindicated in patients with severe liver disease, severe renal disease, or severe heart disease.	<b>Contraindications:</b> Nalmefene is contraindicated in patients with severe liver disease, severe renal disease, or severe heart disease.	<b>Contraindications:</b> Acamprosate is contraindicated in patients with severe liver disease, severe renal disease, or severe heart disease.
<b>Key precautions:</b> High toxicity: Disulfiram is contraindicated in patients with severe liver disease, severe renal disease, or severe heart disease.	<b>Key precautions:</b> Disulfiram is contraindicated in patients with severe liver disease, severe renal disease, or severe heart disease.	<b>Key precautions:</b> Disulfiram is contraindicated in patients with severe liver disease, severe renal disease, or severe heart disease.
<b>More common serious adverse reactions:</b> Disulfiram-related reactions, including peripheral neuropathy, psychosis, and seizures.	<b>More common serious adverse reactions:</b> Disulfiram-related reactions, including peripheral neuropathy, psychosis, and seizures.	<b>More common serious adverse reactions:</b> Disulfiram-related reactions, including peripheral neuropathy, psychosis, and seizures.
<b>Common side effects:</b> Metallic or bitter taste, drowsiness, and fatigue.	<b>Common side effects:</b> Metallic or bitter taste, drowsiness, and fatigue.	<b>Common side effects:</b> Metallic or bitter taste, drowsiness, and fatigue.
<b>Examples of drug interactions:</b> Disulfiram-related reactions, including peripheral neuropathy, psychosis, and seizures.	<b>Examples of drug interactions:</b> Disulfiram-related reactions, including peripheral neuropathy, psychosis, and seizures.	<b>Examples of drug interactions:</b> Disulfiram-related reactions, including peripheral neuropathy, psychosis, and seizures.
<b>How to prescribe:</b> Disulfiram 250 mg daily (range 125 mg to 500 mg).	<b>How to prescribe:</b> Disulfiram 250 mg daily (range 125 mg to 500 mg).	<b>How to prescribe:</b> Disulfiram 250 mg daily (range 125 mg to 500 mg).

Note: Whether or not a medication should be prescribed and in what amount is a matter between individuals and their health care providers. The prescribing information provided here is not a substitute for a provider's judgment in an individual circumstance and the NIAAA accepts no liability or responsibility for use of the information with regard to particular patients. (NIAAA, 2005)

# 2008 Non-Prescribing Clinician's Guide

## Additional online support

- ✓ Dedicated web page
- ✓ Patient education materials
- ✓ Pre-formatted progress notes
- ✓ Animated slide show for training
- ✓ Interactive web training (2008/9)

[www.niaaa.nih.gov/gu](http://www.niaaa.nih.gov/gu)



